## ABSTRACT

The present invention relates to a solid electrolyte having superior conductive properties and reliability, a photovoltaic device using this electrolyte, and 5 manufacturing methods thereof. The solid electrolyte of the present invention is a solid electrolyte having an electrolyte composition and a matrix polymer. The matrix polymer is formed by polymerization of a first compound having at least two isocyanate groups and a second compound 10 having at least two nucleophilic groups containing active hydrogen in accordance with a polyaddition reaction, and the polymerization is performed after a precursor for the matrix polymer is brought into contact with a surface on which the solid electrolyte is to be formed. 15